The Wobbly Oscillator

Cuyahoga Amateur Radio Society

Meeting March 11th at 7:30 P.M.

Meshtastic with David Andrzejewski, AD8G

Denny's Parma – 8111 Day Drive

Hams Who Serve

Volume 55 March 2025 Number 3

From the Prez

Toby, WT8O

CARS Repeater in Full Stride

As of mid-February, the CARS repeater has been fully operational, able to use all its capabilities including EchoLink, Allstar, and WIRES-X, allowing our members and other users to make contact with our repeater from anywhere on the globe.

The crux of the problem was our longtime internet provider terminated the hard wired connection to the main repeater site and their wireless system proved to be inadequate. We switched to another provider whose wireless system not only met our requirements, but did so with a very strong high speed signal.

This was not the result of magic. It took a lot of hard work by our dedicated technical team to overcome obstacles and frustrations. Three cheers to Scott AC8TN; Ron, K8RJH; Terry, KB8DTC, and Mark, KC8ESG. Whenever you see one of these heroes, or hear them on the air, take the time to offer your sincere thanks

CARS Scholarships

Now is the time to consider applying for one of the annual CARS scholarships. The applications and details are on the CARS website at www.2cars.org/service , and must be completed and received by May 31st. 2025.

Two $1,000.00 scholarships will be awarded to any CARS member, their son, daughter, grandson, or granddaughter who is graduating, has graduated high school, received a GED, or successfully passed home schooled high school certification.

A CARS check will be issued to each scholarship winner upon submission of successful enrollment in any certified continuing vocational education program, two year, or four year college program or other appropriate accredited school.

Licensing Classes

Last call for anyone wishing to enroll in the 2025 CARS licensing classes. Last week, on Thursday the 27th, we held our orientation session. Students can still start Thursday, March 6th for the first lesson. Classes will be held at the Seven Hills City Hall Community Room every Thursday at 6:30 PM through April 10th.

There is still room in the Technician, General, or Amateur Extra classes. If you would like to attend please contact Toby, WT8O, at wt8o@att.net or 440-525-6109.

The sentimental side of February was not missed in the monthly CARS meeting—at least not by the donut choices.

Members Step Up

We now have a new committee chairman for our summer picnic and holiday party. Al, KF8BCC, offered to head up those two events. Mark, KC8ESG, volunteered to take care of the soft drinks at meetings and applicable club activities.

Special thanks to Al and Mark for shouldering these important responsibilities.

No groundhogs here. . . 14 members and guests paid no attention to the weather prognostications of any furry forecasters and attended the February CARS meeting at Busch Funeral Home..

February 2025 Meeting Minutes

LOCATION - The meeting was held on February 11th at the Busch Funeral Home on Ridge Road in Parma, Ohio.

CALLED TO ORDER - President Toby Kolman, WT8O, called the meeting to order at 7:30 PM.

PLEDGE OF ALLEGIANCE - Those present pledged allegiance to the flag of the United States of America.

INTRODUCTIONS - Those present introduced themselves. The meeting had 14 attendees, including one guest.

MEETING MINUTES - The January minutes, as published in the February issue of the *Wobbly Oscillator* (*WO*), were approved.

TREASURER'S REPORT - Toby Kolman, WT8O, gave an update on behalf of Matt Perlman, KE8OZU. Reminder: Dues are past due. If you pay your ARRL dues through the club, we will also receive a commission. All tax and statutory filings for 2024 are complete. No concerns were reported with the financials. The annual audit is being scheduled.

PRESIDENT'S REPORT - Toby Kolman, WT8O, reported the following:
Al, KF8BCC, took over as the picnic and holiday party chairman.
Mark, KC8ESG, will take over bringing the pop to future meetings.
Welcoming guests
Licensing classes start Thursday, February 27th—details on the CARS website.
Details on the Dayton Hamvention Bus are on the CARS website. The price is $50 until the end of March and $60 starting in April.
Led a discussion on dinner meetings and agreed we'll have a dinner meeting next month at the Denny's in Independence. Additional details and timing will be on the website.
Roster accuracy and availability
Parking at Busch
CARS ARRL Club afflictions have been updated with the ARRL.
Reminder to pay your ARRL dues through the club

SECRETARY'S REPORT - Secretary Matt Neely, NU8H. No updates.

PUBLIC SERVICE - Matt, NU8H, shared that all CARS members are invited to the local ARES meetings. The meetings are held on the third Tuesday of each month, typically at the Helwig Whistle Stop. Check the website for the location of the next meeting; it may not be at Helwig Whistle Stop. Visit https://n8esg.org/ for details and to volunteer.

VE UPDATE: Metro, W8MET, shared that the VE team just completed a testing session attended by two people. One person got their Technician license, and the other upgraded from Technician to General. The next session is March 9th. Note: This is right after the time change, so keep this in mind so you arrive on time.

PROGRAM COMMITTEE - Joe, KD8BAL, reported that:
Today's speaker canceled at the last minute.
David Andreiski, AD8G, will present on Meshtastic at the March meeting. This assumes the restaurant can support a presentation; please check the CARS website for the latest updates.

TECH COMMITTEE - Scott, NO UPDATES

OLD BUSINESS - Toby, WT8O, led a discussion on the following:
Mentoring sessions - Ideas were shared at the meeting. If folks have other ideas, please share them with Toby.
Discussed the Discord chatroom.

NEW BUSINESS - Toby, WT8O, led a discussion on the following:
Palstar Tuner for sale. The club is looking for a donation from anyone interested in it. If you are interested, talk to Toby.
John, NU8Y, shared that the Cleveland Hamfest will be on September 28th and asked if CARS will have a table. After a short discussion, the club agreed to host a table at this year's Cleveland Hamfest.

REFRESHMENT - Thank you to Matt, NU8H; John, NU8Y.

NEXT MEETING - The Cuyahoga Amateur Radio Society's next meeting will be on March 11th at the Busch Funeral Home on Ridge Road in Parma.

ADJOURNMENT - Toby, WT8O, adjourned the meeting.

50/50 Drawing - Bob, K8RGI, won the 50/50 drawing and donated his winnings back to the club.

Submitted by Matt Neely, NU8H,
CARS Secretary

Cuyahoga Amateur Radio Society

2024 Audit Committee Report

Ron, K8RJH

This year's Audit Committee met on February 24, 2025 for the purpose of reviewing and preparing the annual C.A.R.S. 2024 Financial Audit report. The committee members, President Toby Kolman - WT8O, Committee Member Eddie Stevens - KD8FTS and myself Ron Hollas – K8RJH, to review the financial statements prepared and presented by our club Treasurer Matt Perlman - KE8O-ZU.

Upon examination of the treasurer's documentation, the members concluded all was in order of the C.A.R.S. Club Finances.

The Cuyahoga Amateur Radio Society is financially strong. However, good stewardship is not a replacement for income and fundraising. As reported in previous years, we continually need to find additional income streams to fund activities and programs that are desired by the members. This is not just a function of the executive board. All suggestions from the CARS Members are welcome.

We all owe Matt Perlman a thank-you for his dedication, service and care of the C.A.R.S. finances over the past year with his attention to detail managing the Club's funds using high stewardship principals.

This report submitted by Ron Hollas, K8RJH, Chairman Audit Committee.

Welcome New Members

There are no new members this month. CARS members are encouraged to invite other hams to participate in CARS meetings and events and to invite them to join CARS. Information on membership is located on the CARS website at: JOIN CARS

Honorary Members

Any person who by nature of outstanding or meritorious contribution to the furtherance of amateur radio and the ideals of the Cuyahoga Amateur Radio Society

Robert Check, W8GC

Elected 2/10/15

Thomas Wayne, WB8N

Elected 1/10/17

Dwaine Modock, K8ME/SK

Elected 5/9/17

Toby Kolman, WT8O

Elected 10/10/17

Jerry Smith, NW9H

Elected 5/8/18

Ron Borkey, K8VJG/SK

Elected 5/14/19

Ed Stevens, WB8ROK/SK

Elected 8/10/21

Vince Bak, N8OVW/SK

Elected 11/14/23

Next CARS Meeting

Tuesday, Mar. 11 - 7:30 PM

Denny's Parma

8111 Day Dr. - Parma

David Andrzejewski, AD8G

Will present a program on:

Meshtastic

See Website for Details - www.2cars.org

K8ZFR Upgrades the Internet

AllStar and EchoLink Operational

Ron - K8RJH

Key Items for the K8ZFR AllStar/ EchoLink Repeater system:

(Top) InSeeGo FX3100 5G Wireless Router
(Middle) URIx USB Radio Interface (Audio, COS and PTT)
(Lower) Raspberry Pi3+ using HamVoip software
(Not Shown) UPS Battery Backup power

The K8ZFR Brecksville Repeater has been upgraded with a new 5G Wireless internet connection in February 2025 permitting the popular AllStar/EchoLink system to be operational and online.

The repeater site was unable to use this internet VoIP (Voice Over Internet Protocol) system for the past several months as the original internet service provided by a DSL (Digital Subscriber Loop) phone line has been discontinued. DSL internet has been widely used since the 1980's and being replaced with new, lower cost, higher bandwidth offerings for most users. In the case of the K8ZFR repeater site, most internet options (based on cable or fiber) were simply not available, or cost effective for CARS. One remaining technology solution using the new 5G wireless carriers were investigated over the past several months.

The available 5G networks in northeastern Ohio are in various stages of implementation. The first carrier attempted last year

CARS Technical Committee Members; Mark, KC8ESG (left) Scott, AC8NW (center) and Ron, K8RJH (right) review the AllStar/ EchoLink documentation and installation for certifying the upgraded VOiP system.

Scott, AC8NW completes and inspects the K8ZFR internet upgrade cabling in the repeater equipment bay. The 5G wireless router is mounted above the rack to receive a strong, reliable signal. The AllStar/EchoLink URIx USB interface and Raspberry Pi3+ is placed on a rack tray below the radio equipment.

did provide internet that looked promising, but would not permit the open networking required for AllStar/EchoLink to function. Finally, a second carrier announced that cost-effective "business class" 5G internet coverage was now available and a system trial was quickly requested for the K8ZFR Brecksville site.

It was very encouraging that the trial worked exactly as promised with minimum provisioning for the repeater site equipment. One objective that was met was for the EchoLink users to connect without reprogramming their internet terminals and software.

With the increased internet bandwidth now available for the K8ZFR repeater system, additional operational capabilities will be possible in the future to enhance the overall user experience.

For CARS AllStar and EchoLink nodes, see the repeater box (right) or net schedule box elsewhere in this issue of Wobbly Oscilator.

CARS Repeaters

146.820 (-) PL Tone 110.9

Analog Repeater

Main Site – Brecksville

Receive Only Site – Brunswick

Receive Only Site – Shaker Hts.

AllStar Node 47067

EchoLink Node 343470 (K8ZFR-R)

WIRES X Node 91242 Room 01242

****

443.825 (+) PL Tone 131.8

Digital Yaesu Fusion

Linked to 146.820 Repeater

Brecksville

****

444.75 (+) PL Tone 131.8

Analog Repeater

Not Linked to Other Repeaters

Shaker Hts.

CARS Completes Another CW Class

David, AC8TN

It seems like a long time ago, but on the 3rd of October last year CARS begin its third Morse code class in Seven Hills. The course included eleven one hour classes which took place every 2 weeks reaching completion on 13 February 2025.

Our first CW class in this series began 3 years ago with Ron (K8RJH) and me (David, AC8TN) as instructors. The past two series of classes have been taught by Metro (W8MET) and me. We had seven students begin this session in October with plans to learn Morse code well enough to have casual QSO's and participate in ARRL Field Day 2025.

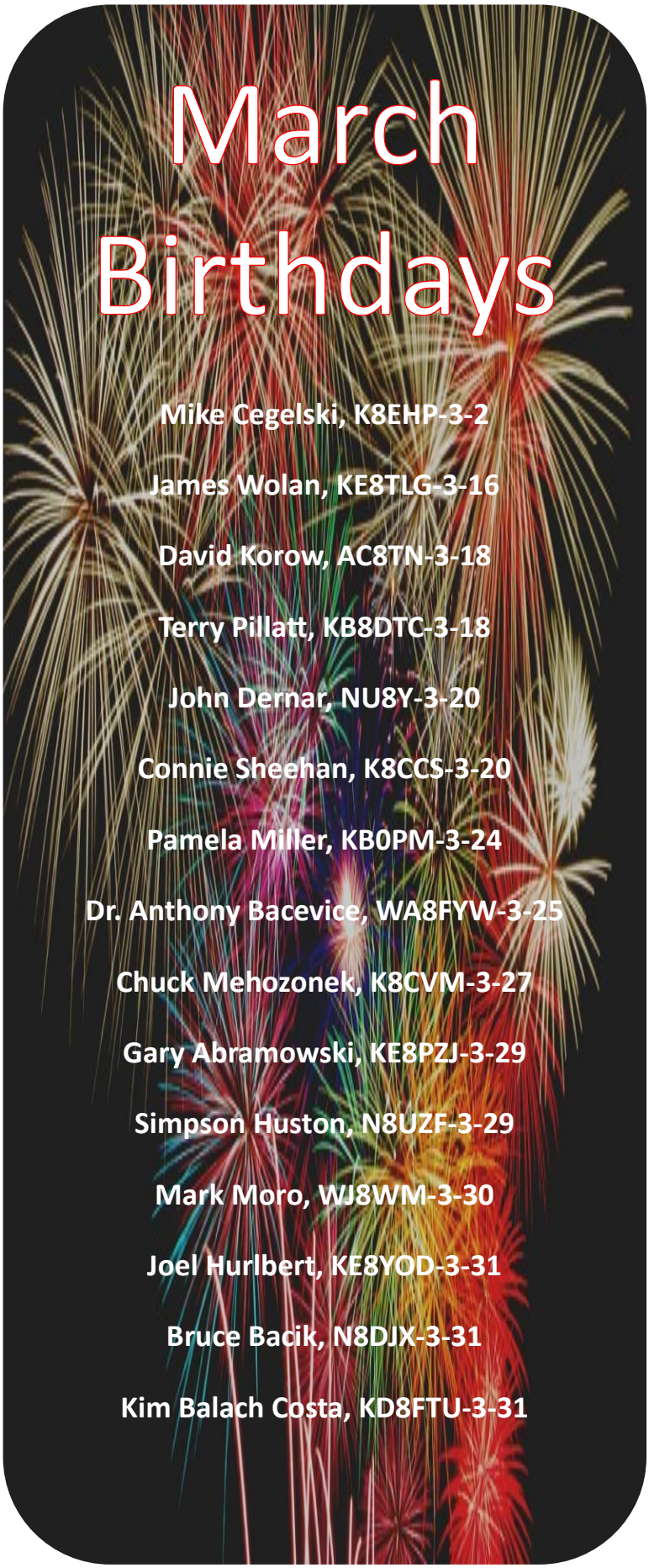
Better to "Give" than Receive?

For most people it is easier to send Morse code than to receive, so we postponed "sending" in the first classes to focus on decoding. During this course we did some things differently. We had the students send and receive the code starting on day one. A milestone was set for the students to operate Winter Field Day (WFD) in January 2025. WFD would give us a wonderful opportunity to have a real-world check on each student's progress and to familiarize them with the Field Day experience and logging software (N3FJP). Finally, we charged a nominal fee to enroll into the course, in hopes of retaining students for the whole course.

Significant Accomplishments

Of the seven students who began the course, four graduated on February 13th. I want to recognize these ham's accomplishments, they are: Elaine, KC8FOS; John, NU8Y; Rich, KE8YUP; and Simpson, N8UZF. All of our graduates hold Amateur Extra class licenses, and three of them began class with a prior knowledge of the code. Every student had the common goal to develop/improve their receiving and sending accuracy and speed. Pushing the students' comfort levels kept the classes challenging and improved performance. With this session we opened the class to everyone, not just CARS members, so we were very happy to have two Woodchuck ARC members graduate.

I can't emphasize enough how much effort each student expended to improve their proficiency. The eleven, one-hour classes acted simply as a



support and refinement tool for the work conducted outside of class. Students did their best to practice every day using the online application Learn CW Online (https://lcwo.net/) and as skills improved, having actual CW QSO's on 2 meters. I commend all of the students (both the graduated and those folks who didn't complete the course) for their efforts and accomplishments during the past four months.

Morse code like many other skills gets easier and more enjoyable the more you practice. It might take months or years to reach your goals of speed and accuracy, but always remember as you improve, you're now part of the 1% of the world's population who know this language.

Metro and I enjoy CW, and encourage others to join our next CARS CW class beginning in October 2025.

Morse Code instructors Dave, AC8TN (far left) and Metro, W8MET (far right) congratulate Rich, KE8Yup, John, NU8Y, and Elaine, KC8FOS on completing the 11-session Morse Code class. The next Morse Code class is planned for October.

Connecting the Dots and Dashes

Where would we be without Morse Code?

Perry, KB8AYQ

Amateur Radio has some direct and some dotted-line connections with many of the everyday items we are all familiar with. The recent Morse Code class conducted by CARS offers an opportunity to dig into a little trivia.

Ever wonder where the ubiquitous UPC bar code came from? "It was Morse Code that gave [Joe Woodland] the idea," says an article in the Smithsonian Magazine. "Woodland had learned it when he was in the Boy Scouts."

Woodland was sitting on the beach in Miami when he says, "I remember I was thinking about dots and dashes when I poked my four fingers into the sand and, for whatever reason—I didn't know—I pulled my hand toward me and I had four lines. I said 'Golly! Now I have four lines and they could be wide lines and narrow lines, instead of dots and dashes. Now I have a better chance of finding the doggone thing.' Then, only seconds later, I took my four fingers—they were still in the sand—and I swept them round into a circle." [From The History of the Bar Code, Smithsonian Magazine 23 Sept 2015.]

Simpson, N8UZF was not present for the "Graduation Photo," but he completed the CARS Morse Code class in February and received his certificate at a later date.

His original patent included the bull's eye code, but it was the linear form we know today that would triumph.

Ohio played a pivotal role in the development of

the UPC. Supermarket operator Marsh ceremoniously scanned its first UPC-labelled product at its Troy, OH store in June 1974. But, bar codes had already been developed and used in other contexts – British Railways had a system for rail car identification, and the General Telephone and Electronics (GTE) developed Kar Trak for U.S. railroads. Kar Trak used a combination of blue, white, and red reflective stripes.

Other technologies had to come together for the bar code we are most familiar with to become viable. Printing quality and the light source for scanning are just two. But another issue that should sound familiar to hams was a system for uniquely identifying each product. Initially, the Kar Trak system used the first digits to identify the company a rail car belonged to and the remainingr digits to identify the specific car. The UPC originally did roughly the same thing. We can see this pattern in our callsigns – the first part of our call A, K, N, W identifies the United States. The number then identifies the region where the call was issued (originally, also where the station operated). And, the latter part of the call makes it unique to the station. The configuration also reflects the licensing level, though this is less apparent since the Federal Communications Commission started allowing hams to keep their callsign when the upgrade or relocate.

Another familiar automatic identification technology that shares some space with amateur radio is the radio-frequency identification tag (RFID). This technology relied on the development of spread spectrum, and for more on that story, you'll have to dig into movie trivia to find the popular actress who worked with her husband to develop that technology.

Perry, KB8AYQ

CQ CQ CQ DE KB8AYQ

For Sale

For Sale - **Palstar BT1500A tuner**

BEST OFFER - MUST SELL

Proceeds go to CARS

Contact Toby, WT8O

440-525-6109 or wt8o@att.net

Dues Notice

Matt, KE8OZV

Your 2025 CARS dues are payable on or before January 31, 2025. If you have already paid THANK YOU.

Dues can be paid in two ways:

You can mail a check to:

CARS
PO Box 31264
Independence, OH 44131-0264

Pay in person at any CARS meeting.

Dues are $26.00 per year for regular membership. Each additional family member is $16.00.

If you are 60 yrs. or older, your dues are only $18.00 per year.

CARS will offer assistance to anyone having a hardship.

Please let me know if you have a hardship or know a member who needs help.

Using AllStar / EchoLink like a Pro!

Ron – K8RJH

Amateurs who have configured and used the AllStar or EchoLink system have realized a communications tool that offers unique connectivity into local and worldwide ham radio resources. One such resource is the club repeater, K8ZFR, which is available for connecting or linking from virtually anywhere in the world. A ham operator (generally with Technician or higher privileges) can apply for an All-Star and /or EchoLink account which allows for the activation of a smartphone application or PC software that permits access with this Internet based amateur radio system. It is the ease of the configuration and the low cost for this capability that makes it attractive for most amateurs.

This VOiP (Voice over Internet Protocol) communications solution is well documented with a simple search on "AllStar" or "EchoLink", resulting with information from the basic "how to" set-ups to very advanced provisioning subjects for network nodes. Assuming that a smart phone app or PC software is downloaded and installed, do consider following a best-practices checklist to make your sure that, in your experience, these programs will work and communicate as expected. Here is a list of 10 items that are helpful when using amateur VOiP.

1. Proper Configuration

Ensure your program or application is installed correctly. Be aware of either local firewall or proxy settings that will allow the service to function properly. These programs usually have a built-in network test feature to aid in the user set-up. This will help prevent connection issues and ensure smooth operation. Once configured, be sure to document your settings for future reference.

2. Audio Levels

Use the Echotest conference server (Node #9999) to adjust your audio levels. This server will echo back what you transmit. Aim for the voice peaks to just touch the yellow part of the audio meter on the screen. Avoid overdriving the audio, as it can cause distortion and make your transmissions difficult to understand.

Similar to EchoLink, use the AllStar Test conference to adjust your audio levels. Make sure your audio is clear and undistorted by avoiding overdriving the input. Adjusting the audio properly ensures that your transmissions are easily understood by other operators.

3. Transmission Time

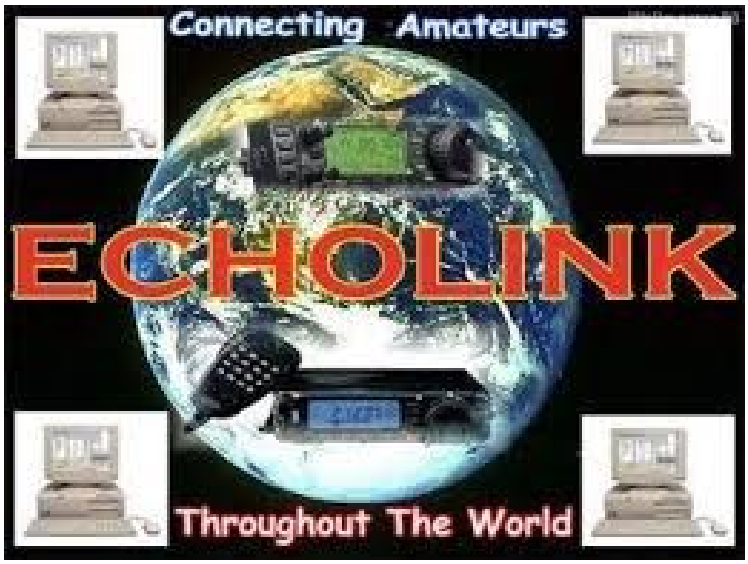
Keep your transmissions concise, ideally under 1 to 3 minutes. This practice allows time for others to participate. Additionally, short transmissions make it easier for RF (Radio Frequency) links to manage connection stability and avoid timeouts for linked nodes.

4. Wait Between Transmissions

Wait at least 3 seconds between transmissions. This pause allows RF links to reset and provides time for others to perform control functions or respond. It also helps prevent doubling, where multiple stations transmit simultaneously, causing overlapping and interference.

5. Dedicated PC

Use a dedicated PC for your AllStar / EchoLink software to minimize interference from other running applications. A dedicated setup ensures a stable and reliable connection, free from unintended audio interruptions or system notifications.



6. Remote Control

For advanced users, implement a method for remote control of your RF or access link. EchoLink offers basic remote-control functions, but you can also use third-party remote access software like TeamViewer or AnyDesk. This setup allows you to manage your RF link even when you are away from the PC, ensuring continuous operation and quick troubleshooting.

7. Follow Regulations

Remember to follow all relevant rules and regulations, just as you would for any on-air operations. This includes identifying yourself with your call sign, maintaining proper conduct, and avoiding prohibited content. Also, familiarize yourself with local and international regulations to ensure compliance and respectful communication.

8. Regular Maintenance

Perform regular maintenance on your access device (PC or smartphone) . This includes updating software, checking hardware, and ensuring all connections are secure. Regular maintenance helps prevent unexpected issues and ensures smooth operation. Remember, it is also a good practice to back up your configuration files regularly.

9. Community Engagement

Engage with the AllStar / EchoLink community. Participate in forums, attend meetings, and share your experiences. Engaging with the community helps you stay updated on best practices, new developments, and can provide valuable support and insights from other users.

10. Emergency Communications

Amateur radio services, including EchoLink, are often used for emergency communications. You should be prepared to assist in emergencies and follow any relevant protocols. This includes being aware of local emergency communication plans and participating in drills and exercises.

These best practices should help you have a smooth and effective experience with AllStar / EchoLink. If you have any specific questions or need further clarification on any of these points, feel free to ask!

For additional information:

AllStar: https://www.allstarlink.org/

EchoLink: https://www.echolink.org/

Classes Begin for New Technicians, General, and Extra Upgrades

Month VE Session

The next VE testing session will be held Sunday, March, 9th, at 9:15 AM (SPECIAL NOTE: That is the date for Daylight Savings Time to begin, so check your clock!). Testing is at the Old Elmwood Recreation Center, 6200 Pete Wisniesky Parkway, Independence 44131. Directions and a map are on the CARS website homepage. For information or an appointment please contact Metro, W8MET, at 216-520-1320 or metro351@sbcglobal.net

As always, walk-ins are welcome.

No matter what your license class is, or how much time you have available to volunteer, your service would be welcome in a number of ways this year! Just be sure to ask any CARS officer or active public service member in our scheduled Monthly Club meetings for current volunteer information.

A special VE session will also be scheduled at the comple-

March Net Sked

March	5	KD8ACO
March	12	AC8NW
March	19	WT8O
March	26	K8RJH

Nets are run every Wednesday at 9:00 PM on:

146.820 (PL 110.9)

443.825(+) PL Tone 131.8
Digital Yaesu Fusion / C4FM
Linked to the 146.82 Repeater

EchoLink Node 343470 (K8ZFR-R)

Allstar Node 47067

WIRES X Node 91242-Room 01242

2025 CARS Committees, Officers, Board and Trustees

CARS 2025 Committees

50/50

Chair: Andy Evridge, KD8SCV

Member: Joe Ulazewski, KD8BAL

ARRL Liaison

Chair: Ron Hollas, K8RJH

Audio/Video

Chair: Scott Smith, AC8NW

Audit

Chair: Ron Hollas, K8RJH

Members: Eddie Stevens, KD8FTS and Toby Kolman, WT8O

Awards

Co-Chairs: Toby Kolman, WT8O, and Mark Moro, WJ8WM

Field Day

Co-Chairs: Chair: Bob Robbins, K8RGI and Toby Kolman, WT8O

Members: David Korow, AC8TN, Arp Viiberg, K8ARP, Ron Hollas, K8RJH, Andy Evridge, KD8SCV and Mark Moro, WJ8WM

Hamvention Bus

Chair: Eddie Stevens, KD8FTS

Historian

Chair: Toby Kolman, WT8O

Holiday Party, Summer Picnic

Co-Chairs: Al Farley, KF8BCC and Mark Moro. WJ8WM

Members: Arp Viiberg, K8ARP

License Classes

Chair: David Noeth, KD8ACO

Members: Joel Chaney; K8SHB, Ron Hollas, K8RJH, and Toby Kolman, WT8O

Media Representative

Chair: Andy Evridge, KD8SCV

Membership

Chair: Toby Kolman, WT8O

Member: Matt Perlman, KE8OZU

Net

Chair: Toby Kolman, WT8O

Members: Scott Smith, AC8NW, David Korow, AC8TN, Ron Hollas, K8RJH and David Noeth, KD8ACO

Newsletter

Chair: Perry Trunick, KB8AYQ

Member: Yuri Sivitski, W4YSW

Programs at Meetings

Chair: Joe Ulaszewski, KD8BAL

Members: Eddie Stevens, KD8FTS and Matt Perlman, KE8OZU

Public Service

Chair: Eddie Stevens, KD8FTS

Members: Chuck Mehozonek, K8CVM, and Arp Viiberg, K8ARP

QSL Manager

Chair: Metro Sinko, W8MET

Quartermaster

Chair: Toby Kolman, WT8O

Records Custodian

Chair: Terry Pillatt, KB8DTC

Refreshments - Coffee

Chair: John Dernar, NU8Y

Refreshments - Donuts

Chair: Matt Neely, NU8H

Refreshments - Pop

Chair: Mark Rosewicz, KC8ESG

Scholarship

Chair: Toby Kolman, WT8O

Members: Bob Robbins, K8RGI, Ron Hollas, K8RJH, Matt Perlman, KE8OZU, and Mark Moro, WJ8WM.

Sunshine (Welfare)

Chair: Andy Evridge, KD8SCV

Technical

Chair: Scott Smith, AC8NW

Members: Mark Scoville, AD8KE, Ron Hollas, K8RJH, Terry Pillatt, KB8DTC, Mark Rosewicz, KC8ESG, David Noeth, KD8ACO and Mark Moro, WJ8WM

VE Exams

Chair: Metro Sinko, W8MET

Members: George Pindroh, K8KR; Fred Freer, K8IG: David Korow, AC8TN,

Simpson Huston, N8UZF, Matt Neely, NU8H

Webmaster/email

Chair: Matt Perlman, KE8OZU

2025 Officers

President

Toby Kolman, WT8O

440-525-6109

wt8o@att.net

Vice-President

Ron Hollas, K8RJH

216-379-7440

ron@hollas.co

Secretary

Matt Neely, NU8H

216-965-4476

matt@matthewneely.com

Alternate Secretary:

Matt Perlman, KE8OZU

Treasurer

Matt Perlman, KE8OZU

216-337-1540

matt@seagem.me

CARS 2024 Executive Board

Board Chair

Mark Moro, WJ8WM

216-496-2871

Alternate: Arp Viiberg, K8ARP

Even Year Board Members

Scott Smith, AC8NW; John Dernar, NU8Y, and Mark Moro, WJ8WM

Odd Year Board Members

Eddie Stevens, KD8FTS; Mark Rosewicz, KC8ESG, and Al Farley, KF8BCC

CARS License Trustees

K8ZFR Trustee

Toby Kolman, WT8O

W8BM Trustee

Mark Moro, WJ8WM

W8HBI Trustee

Matt Perlman, KE8OZU

The *Wobbly Oscillator* is a publication of the Cuyahoga Amateur Radio Society. Articles from this publication may be reprinted in any ham radio publication, if credit is given to this publication and the author, if known.